

## REMARKS

Claims 1-10 are pending in the present application. Claim 1 has been amended without prejudice to or disclaimer of the subject matter contained therein.

Reexamination of the application and reconsideration of the rejections and objections are respectfully requested in view of the above amendments and the following remarks, which follow the order set forth in the Office Action.

### *Interview Summary*

Applicants thank the Examiner for a favorable discussion on the patentability of the claims in view of the data presented in Exhibit B of the previous Amendment filed on March 29, 2010. During the interview, the Examiner requested that Applicants submit this data in the form of a declaration under 37 CFR 1.132. Accordingly, a declaration is submitted with this Amendment.

### *Information Disclosure Statement*

Applicants thank the Examiner for the review of the Information Disclosure Statements filed. In response, Applicants have submitted a replacement Information Disclosure Statement listing patents, publications, or other information for consideration by the Office. Applicants also provide English translations of the documents listed therein that are not in English.

### *Rejections under 35 U.S.C. § 103*

The Office rejected claims 1-10 under 35 USC 103(a) over EP0141317 (corresponding to U.S. Patent No. 4,617,303 ("Eicken"), WO 03/009687 (corresponding to CA 2,454,542 ("Stierl"), and EP 215 382 (corresponding to CA 1,288,096 ("Hermann I")). Applicants traverse the rejection.

#### **I. Eicken, Stierl, and Hermann I**

Neither *Eicken*, *Stierl*, nor *Hermann I*, alone or in combination, teach or suggest the claimed subgenus of the claimed compounds encompassed by the genus disclosed in *Eicken*. Further, neither of these references, alone or in combination, teach or suggest the unexpected fungicidal activity achieved by replacing a methyl or propyl group of R<sup>2</sup> in a compound of formula (I) with an ethyl group, isopropyl group or CH<sub>2</sub>CH=CH<sub>2</sub>.

***Eicken***

The current claims are directed to a subgenus and species not disclosed specifically in *Eicken*, which discloses triazolopyrimidine compounds with  $R^1$  being alkyl or alkoxy-substituted alkyl and  $R^2$  being  $C_1$ - $C_4$  alkyl. By contrast, the specific design of the variables  $R^1$  being  $C_5$ - $C_{12}$ -alkyl or  $C_5$ - $C_{14}$ -alkoxyalkyl and  $R^2$  being ethyl, isopropyl or  $CH_2CH=CH_2$  of the claimed compounds of formula I, as recited in claim 1, yield an unexpected improvement in fungicidal activity.

***Declaration showing Unexpected Results***

Applicants conducted comparative trials to compare the fungicidal activity of the claimed compounds with compounds which are known from *Eicken*. Attached as Exhibit A is a declaration under 37 CFR 1.132 by inventor Dr. Egon Haden. The declaration compares compounds that differ only in the structural feature  $R^2$ . From the data, it is evident that the increased activity of the claimed compounds is attributable to the inventive structural feature. Plants treated with each of these compounds with  $R^2$  as ethyl, isopropyl, or  $CH_2CH=CH_2$  exhibited a lower percentage of diseased leaf area (Attack in %) than plants treated with a corresponding compound from *Eicken* in which  $R^2$  is neither ethyl, isopropyl, nor  $CH_2CH=CH_2$ . See, *Eicken*, col. 5-8. The compounds according to the current compounds in which  $R^2$  is as defined in claim 1 are significantly more effective than compounds disclosed in *Eicken*. Accordingly, the skilled artisan would not expect replacing a methyl or n-propyl group with an ethyl group, isopropyl group or  $CH_2CH=CH_2$  as the  $R^2$  substituent would lead to a significantly broadened spectrum of activity and an increase of the fungicidal activity.

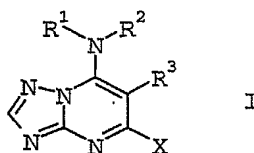
Applicants respectfully submit that the data with respect to the particular compounds tested in the declaration is commensurate in scope with the claims because claim 1 provides for three possibilities for  $R^2$ : ethyl, isopropyl, or  $CH_2CH=CH_2$ . The compounds tested within the declaration encompass each of these possible  $R^2$ . For example,  $R^2$  as ethyl is tested in Experiment Nos. 2, 4, 6, 9, and 11. See, declaration, pp. 2-3.  $R^2$  as isopropyl is tested in Experiment Nos. 16 and 18 and  $R^2$  as  $CH_2CH=CH_2$  is tested in Experiment No. 14. Thus, one of ordinary skill in the art would understand from the declaration that the unexpected result derives from the particular identity of the  $R^2$  group recited in claim 1. Since the compounds tested in the declaration encompass compounds having all three possibilities for  $R^2$  recited in claim 1, the declaration is commensurate in scope with respect to at least all of the claimed compounds.

Applicants respectfully submit that data with respect to the particular plant pathogens and particular doses tested in the declaration is commensurate in scope with the claims. For compound claims, a showing of unexpected results need not be demonstrated in every environment in which the compound may be used. *In re Chupp*, 2 U.S.P.Q. 2d 1437 (Fed. Cir. 1987) (attached as "Exhibit B"). In that case, the court ruled that a demonstration of the compound's superior activity on just quackgrass and yellow nutsedge in corn and soybeans was sufficient to show nonobviousness. The court stated that "there is no set number of crops on which superiority must be shown, and the expectation that persons would want to use the compound to produce inferior results (or would want to fight lawsuits over such uses) is false." *Id.* at 1440. For at least these reasons, Applicants' showing of unexpected results with respect to the particular plant pathogens and the particular doses tested is commensurate in scope with the claims.

In view of these unexpected results, one of ordinary skill in the art would not have been motivated by *Eicken* to prepare the instantly claimed compounds as there is no reason to believe that they would be superior fungicides with a widened biological spectrum. Consequently, the claimed subgenus is not rendered obvious by the disclosure of *Eicken*.

### ***Stierl***

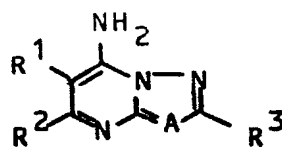
*Stierl* does not teach or suggest the claimed compounds of formula I wherein R<sup>2</sup> is an ethyl group, isopropyl group or CH<sub>2</sub>CH=CH<sub>2</sub>, as required by claim 1. Instead, *Stierl* teaches a compound having formula:



The group "X" corresponds to the R<sup>2</sup> group of claim 1. In contrast with claim 1, *Stierl* teaches that "X is halogen, cyano, C<sub>1</sub>-C<sub>4</sub>-alkoxy, C<sub>1</sub>-C<sub>4</sub>-haloalky, phenyl, or R<sup>a</sup>-substituted phenyl." *Stierl*, page 2. As such, *Stierl* does not teach or suggest R<sup>2</sup> as ethyl group, isopropyl or CH<sub>2</sub>CH=CH<sub>2</sub>, as required by claim 1.

### ***Hermann I***

*Hermann I* also fails to teach or suggest the claimed compounds. *Hermann I* teaches compounds having formula:

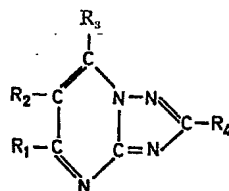


wherein R<sup>1</sup> is aryloxyalkoxyalkyl, alkoxyalkoxyalkyl, alkoxyalkoxyalkoxyalkyl or dimethylaminoalkyl. By contrast, the group corresponding to R<sup>1</sup> above in the claimed compounds is optionally substituted by C<sub>5</sub>-C<sub>12</sub>alkyl or C<sub>5</sub>-C<sub>14</sub>alkoxyalkyl. Thus, the claimed compounds cannot be “embraced by the genus of [*Hermann I*]” as the office action alleges. As such, *Hermann I* is not as close to the claimed compounds as *Eicken*. As discussed above for *Eicken* and shown in the accompanying declaration by Dr. Egon Haden, Applicants’ compounds are unexpectedly superior to the closest prior art and therefore are not obvious over *Hermann I*. Applicants respectfully request withdrawal of the rejection.

## II. Hermann II

The Office rejected claims 1-10 under 35 U.S.C. §103(a) as being obvious over GB1148629 to Hermann et al. (“Hermann II”). Applicants traverse the rejection.

*Hermann II* fails to teach or suggest the claimed compounds. Instead, *Hermann II* teaches compounds of formula:



wherein each of R<sub>1</sub> and R<sub>2</sub> may be a C<sub>1</sub>-C<sub>4</sub> alkyl, R<sub>3</sub> may be amino, and R<sub>4</sub> may be H (see page 1, left column, lines 15-25). Applicants note that R<sup>1</sup> of the claimed compounds (corresponding to R<sub>2</sub> of the reference) does not cover a C<sub>1</sub>-C<sub>4</sub> alkyl. Thus, the claimed compounds do not overlap with the compounds of *Hermann II*.

*Hermann II* also does not teach or suggest that choosing an ethyl group, isopropyl group or CH<sub>2</sub>CH=CH<sub>2</sub> as the R<sup>2</sup> substituent of the claimed compounds would lead to a significantly broadened spectrum of activity and an increase of the fungicidal activity, as described in the declaration. For at least these reasons, *Hermann II* cannot render the claimed compounds obvious. Applicants respectfully request withdrawal of the rejection.

***Obviousness-Type Double Patenting Rejections***

The Office rejected claims 1-10 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 7,501,383 and claims 1-7 of U.S. Patent No. RE32676. Applicants traverse this rejection.

The claimed compounds are not obvious variants of the compounds of claims 1-10 of U.S. Patent No. 7,501,383 because there is no teaching or suggestion to choose R<sup>2</sup> as an ethyl group, isopropyl group or CH<sub>2</sub>CH=CH<sub>2</sub>. In contrast to the claimed compounds, R<sup>2</sup> is described in claim 1 of U.S. 7,501,383 as being a C<sub>5</sub>-C<sub>12</sub> alkyl while R<sup>2</sup> of the claimed compounds is not a C<sub>5</sub>-C<sub>12</sub> alkyl.

The claimed compounds are not obvious variants of the compounds of claims 1-7 of U.S. Patent No. RE32676 because the limitations therein of R<sup>1</sup> as a C<sub>7</sub>-C<sub>18</sub> alkyl and R<sup>2</sup> as hydrogen or a C<sub>1</sub>-C<sub>4</sub>-alkyl provide no teaching or suggestion to choose R<sup>1</sup> as C<sub>5</sub>-C<sub>12</sub>-alkyl or C<sub>5</sub>-C<sub>14</sub>-alkoxyalkyl and R<sup>2</sup> as an ethyl group, isopropyl group or CH<sub>2</sub>CH=CH<sub>2</sub>, particularly in view of the unexpected improvement in fungicidal activity of the claimed compounds over those in which R<sup>2</sup> is methyl (Experiment Nos. 1, 3, 5, and 8) or where R<sup>2</sup> is n-propyl (Experiment Nos. 10, 13, 17, and 19). For at least these reasons, claims 1-10 are patentable over claims 1-10 of U.S. Patent No. 7,501,383 and claims 1-7 of U.S. Patent No. RE32676. Applicants respectfully request withdrawal of the rejection.

The Examiner provisionally rejected claims 1-10 on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claims 14-26 of copending Application No. 11/885,360 and claims 14-33 of copending Application No. 11/885,332. Applicants respectfully request that the rejections be withdrawn in this application, which is the first-filed application. When the present claims are found allowable, the Examiner should assess whether the rejection could then be applied to the later-filed applications.

For the foregoing reasons, claims 1-10 are considered allowable. A Notice to this effect is respectfully requested. If any questions remain, the Examiner is invited to contact the undersigned at the number given below.

**The Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 23-1925.**

Respectfully submitted,

BRINKS HOFER GILSON & LIONE

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